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polymer in a mixing vessel at temperatures from 23°C to 120°C in an inert atmosphere and continuing to mix for a period of time until the peroxide decomposes and polymer fragmentation and branching occurs without significant gelation of the polymer. DeNicola states that at temperatures greater than 120°C no branching or melt strength enhancement is achieved.--

Please replace the paragraph beginning at page 14, line 14, and ending at page 15, line 15, with the following paragraph.

a²
--Preferred initiators for use in combination with monomers include Dibenzoyl peroxide, o,o'-Bis(methylbenzoyl) peroxide, p,p'-Bis(methylbenzoyl) peroxide, M,M'-Bis(methylbenzoyl) peroxide, o,m'-Bis(methylbenzoyl) peroxide, o,p'-Bis(methylbenzoyl) peroxide, m,p'-Bis(methylbenzoyl) peroxide, Bis(ethylbenzoyl) peroxide (all isomers), Bis(propylbenzoyl) peroxide (all isomers), Bis(butylbenzoyl) peroxide (all isomers), Bis(pentylbenzoyl) peroxide (all isomers), Bis(hexylbenzoyl) peroxide (all isomers), Bis(heptylbenzoyl) peroxide (all isomers), Bis(octylbenzoyl) peroxide (all isomers), Bis(nonylbenzoyl) peroxide (all isomers), Bis(methoxybenzoyl) peroxide (all isomers), Bis(ethoxybenzoyl) peroxide (all isomers), Bis(propoxybenzoyl) peroxide (all isomers), Bis(butoxybenzoyl) peroxide (all isomers), Bis(pentoxymethylbenzoyl) peroxide (all isomers), Bis(hexyloxybenzoyl) peroxide (all isomers), Bis(heptyloxybenzoyl) peroxide (all isomers), Bis(octyloxybenzoyl) peroxide (all isomers), Bis(nonyloxybenzoyl) peroxide (all isomers), Bis(chlorobenzoyl) peroxide (all isomers), Bis(fluorobenzoyl) peroxide (all isomers), Bis(bromobenzoyl) peroxide (all isomers), Bis(dimethylbenzoyl) peroxide (all isomers), Bis(trimethylbenzoyl) peroxide (all isomers), Bis(tert-butylbenzoyl) peroxide (all isomers), Bis(di-tert-butylbenzoyl) peroxide (all isomers), Bis(tert-butoxybenzoyl) peroxide (all isomers), Bis(ditrimethylsilylbenzoyl) peroxide (all isomers),

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a² cm¹
Bis(heptafluoropropylbenzoyl) peroxide (all isomers), Bis(2,4-dimethyl-6-trimethylsilyl benzoyl) peroxide and isomers, 2,2'(dioxycarbonyl) bis - Benzoic acid dibutyl ester, tert-butyl perbenzoate, tert-butyl (methyl)perbenzoate (all isomers), tert-butyl (ethyl)perbenzoate (all isomers), tert-butyl (octyl)perbenzoate (all isomers), tert-butyl (nonyl)perbenzoate (all isomers), tert-amyl perbenzoate, tert-amyl (methyl)perbenzoate (all isomers), tert-amyl (ethyl)perbenzoate (all isomers), tert-amyl (octyl)perbenzoate (all isomers), tert-amyl (nonyl)perbenzoate (all isomers), tert-amyl (methoxy)perbenzoate (all isomers), tert-amyl (octyloxy)perbenzoate (all isomers), tert-amyl (nonyloxy)perbenzoate (all isomers), 2-ethylhexyl perbenzoate, 2-ethylhexyl (methyl)perbenzoate (all isomers), 2-ethylhexyl (ethyl)perbenzoate (all isomers), 2-ethylhexyl (octyl)perbenzoate (all isomers), 2-ethylhexyl (nonyl)perbenzoate (all isomers), 2-ethylhexyl (methoxy)perbenzoate (all isomers), 2-ethylhexyl (ethoxy)perbenzoate (all isomers), 2-ethylhexyl (octyloxy)perbenzoate (all isomers), 2-ethylhexyl (nonyloxy)perbenzoate (all isomers), Bis (tertbutylmonoperoxy phthaloyl) diperoxy terephthalate, Bis (tertamylmonoperoxy phthaloyl) diperoxy terephthalate diacetyl phthaloyl diperoxide, dibenzoyl phthaloyl diperoxide, bis(4 methylbenzoyl) phthaloyl diperoxide, diacetyl terephthaloyl di peroxide, dibenzoyl terephthaloyl diperoxide and Poly[dioxycarbonyldioxy(1,1,4,4-tetramethyl-1,4-butanediyl)] peroxide.--

Please replace the paragraph beginning at page 16, line 25, and ending at line 28, with the following paragraph.

a³
--It is possible to combine the process of the present invention with other processes of polymer modification or with, for example, the addition of fillers, additives or stabilisers, or blending with other polymers.--

Please replace the paragraph beginning at page 17, line 1, and ending at line 4, with the following paragraph.

a4 --In the process of the present invention the polypropylene (co)polymer is melt mixed in the presence of initiator and optionally a monomer. Melt mixing may be carried out by any convenient means capable of mixing the polypropylene (co)polymer at temperatures above the melting point of the polypropylene (co)polymer.--

Please replace the paragraph beginning at page 25, line 21, and ending at page 26, line 1, with the following paragraph.

a5 --The twin screw extruder used in the examples was a JSW TEX-30 with a 30 mm screw diameter and an overall L/D of 42. The extruder was operated in either co-rotating (intermeshing self wiping) or counter rotating (intermeshing non-self wiping) modes with a throughput rate of between 5 and 20 kg/hr and screw speeds of between 100 and 400 rpm as specified in Table 1. The melt temperature and pressures were monitored at three points along the barrel and in the die.--

Please replace the paragraph beginning at page 44, line 16, and ending at line 18, with the following paragraph.--

a6 GPC molecular weights were determined using a Waters 150C high temperature GPC unit. 1,2,4-trichlorobenzene was used as the solvent, eluting through two Ultrastyrigel linear columns. The oven temperature was set at 140°C and the pump flow rate was 1.0 ml/min.

Please replace the paragraph beginning at page 46, line 19, and ending at line 20, with the

following paragraph.

97 --Table 20: Effect of feed throat addition of BPO on the modification of prestabilised PP
homopolymer--

Please replace the paragraph beginning at page 47, line 17, and ending at line 18, with the following paragraph.

98 --Table 22: Effect of feed throat addition of BPO on the modification of prestabilised PP
homopolymer--

In the Claims:

Please amend claims 1, 4, 11, 16, 17, and 19 as follows:

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5.4.3
1: --1. (Amended) A process for increasing the melt strength and/or the extensional melt viscosity of a polypropylene (co)polymer, the process comprising melt mixing a polypropylene (co)polymer in the presence of an initiator wherein said initiator is selected from the group defined by formula

